R.F. XMTR RCVR

New!

LOW COST WIRELESS (R.F.) FAIL SAFE ALARMS-CONTROLLERS

SERIES FS

DESCRIPTION (General):

OTEK's **"FS"** Series exclusive ***Fail-Safe*** feature consists of a periodic "check-in" signal (independent of the alarm or count signals) sent by the transmitter every minute to the receiver to assure proper communication. If the receiver fails to receive up to two (2) "check-in" signals (2 minutes max.) it will blink its red LED and beep its buzzer to **"WARN"** you of the problem. The receiver has a safety screw to secure it to the AC wall plate and a 9V battery back up for continuous operation in the event of power failure.

Two Transmitter packages are availble: the AC powered with battery back up and optional counter, and the miniature (1 X 1.5 X 2") case for panel, chassis, pipe or DIN Rail mounting. Both models have either internal or external sensors.

The Receiver has an AC wall plate mount case with security screw, relay (.5A/120VAC SPDT) output and optional 9V Battery backup, 6 digit counter and EEPROM with TTL output for **"TOTAL COUNT"** or **"ALARMS"** accumulated.

SPECIFICATIONS (ALL):

- R.F. Operating Frequency: 433.92MHz
- Modulation: On-Off Keyed (OOK)
- License Requirements: None (FCC P15.231)
- Programmable Codes: 255 (internal dipswitch)
- Op./Storage Temperature: 0-60/-20-70°C

A. TRANSMITTER:

A.1 Options 0 & 3 (Miniature Case):

- Voltage Requirements: Internal 4.5V (3-AAA) or external 5, 7-12VDC
- Current Requirements: Sleep: 1mA, Transmit: 10mA
- Internal Battery Life Expectancy:1000 Hours (average use)

A.2 Options 1 & 4 (AC Plug In Case):

- Power Input: 120VAC ±20% 50-60Hz, 100mV (Fused)
- 9V Battery Back-up Life Expectancy (Optional): 40 Days (average use)

B. RECEIVER

- Same as A.2 above

SPECIFICATIONS BY FUNCTION:

A. TRANSMITTERS:

- Input trigger delay: 50mS (Options 0-6, 8 & 9)
- Accuracy & Repeatability: ±10% of setting (Options 1-5, 8 & 9)
- Frequency Response: 1mS (1KHz) for Option 7 (Counter)
- Controls: "TEST" Switch (Range Finder) All Units

B. RECEIVER:

- Controls: Alarm Reset, Counter Reset & Count Load

DESCRIPTION (BY FUNCTION) & APPLICATIONS:

Option: 00 Alarm Controller

A. **Transmitter:** You apply a positive (or open) pulse-level to the transmitter and it transmits the "Alarm" Code.

B. **Receiver:** Turns on & latches its LED, buzzer and relay until manually reset and accumulates the count in the optional counter and/or EEPROM.

Applications: Manual Wireless Control, Illegal Entry, Over/Under Temperatuer, Pressure, Flow, Speed, Etc. Just Connect Your Own Sensor To It and Control It Wireless!

Option: 01 POSITION (TILT):

A. **Transmitter:** Detects Angular Position/Shock/Vibration greater than 15° off horizontal and transmits the alarm code.

B. **Receiver:** Turns on & latches its LED, buzzer and relay until manually reset and accumulates the count in the optional counter and/or EEPROM.

Applications: Seismic, Hazardous Location to safe area communication, machinery preventive maintenance, structures, buildings, bridges, transportation, tilted loads, etc.

Option: 02 LIQUID LEVEL ALARM:

A. **Transmitter:** You connect any two insulated wires (bared tips) to the transmitter and drop the other end to the desired level of detection. Upon detecting the liquid (conductivity) it will transmit the Alarm Code.

B. **Receiver:** Turns on & latches its LED, buzzer and relay until manually reset and accumulates the count in the optional counter and/or EEPROM.

Applications: Flood prevention, over filling of storage tanks, ponds, plating baths, fuel storage, hazardous liquids, etc.

DESCRIPTION (BY FUNCTION) & APPLICATIONS Continued

Option: 03 LIQUID LEVEL CONTROL:

A. **Transmitter:** Same as 02.A, except it transmits one code for No Conductivity (Low Level) and another for Conductivity (High Level).

B. **Receiver:** The first R.F. Code received, turns and latches its LED, buzzer and relay (you can use it to turn on the pump, etc.) and the second code RESETS them (turns off your pump, etc.)

Applications: Liquid control to exact level by continuously turning on and off replenishing pumps wireless, from remote locations (Hazardous to Safe Area) etc. **NOTE:** For non-continuous level control (On-Off) use one Option 03 for "ON" (Low Level) and one Option 03 for "OFF" (High Level). Contact OTEK Corp.

Option: 04 MOISTURE ALARM

A. **Transmitter:** Same as 02.A except attach the bare tips of the wires to the subject (wood, soil, food, etc.). Upon detecting dryness (wetness on request) of about 50% (internally adjustable), it will transmit the Alarm Code.

B. **Receiver:** Turns on & latches its LED, buzzer and relay until manually reset and accumulates the count in the optional counter and/or EEPROM.

Option: 05 MOISTURE CONTROL:

A. **Transmitter:** Upon detecting moisture below 40% (adjustable), it transmits a code (dryness) and upon detecting moisture of 60% (adjustable) it transmits a second R.F. Code pulse.

B. **Receiver:** The first R.F. Code received, turns and latches its LED, buzzer and relay (you can use it to turn on the pump, etc.) and the second code RESETS them (turns off your pump, etc.)

Applications: Moisture content control, turning on and off your dryer/humidifier (or pump) in Food Processing, Agricultural , Pharmaceutical, Explosives, etc.

Option: 06 START-STOP (ON-OFF):

A. **Transmitter:** The first positive pulse (or open) received at its terminals, "Start-Stop" Switch or Jack will send an R.F. Code (Start), the second pulse will send a second R.F. Code (Stop).

B. **Receiver:** The first R.F. Code received, turns and latches its LED, buzzer and relay (you can use it to turn on the pump, etc.) and the second code RESETS them (turns off your pump, etc.)

Applications: Manual/Automatic Remote Control of Motors, Conveyors, Pumps, Process, etc. The first pulse starts the process, the second stops it.

Option: 07 COUNTER: PULSE IN - PULSE OUT

A. **Transmitter:** Everytime the transmitters gets a positive pulse (TTL) at its terminals, jack or you press the "Count" Switch, it transmits it. (Max. repetition rate of 100Hz).

(Order the optional counter for count verification!).

B. **Receiver:** Every pulse (R.F.) received will turn on its TTL output, relay, LED and buzzer on and off and increment the numberr of "Counts" received in the counter and EEPROM (If Ordered).

Applications: Remote control of Production/Inventory (1 pulse in = 1 pulse out), such as in Livestock, Volume, Flow, Personnel (In & Out), etc. Just connect your sensor to the transmitter and use the counters on both units to verify accuracy.

Option: 08 SMOKE

A. **Transmitter:** Same operation found in 00.A except that is has a built-in smoke detector (N.F.P.A. Compliant) and will transmit the R.F. Code upon detecting smoke level.

B. **Receiver:** Turns on & latches its LED, buzzer and relay until manually reset and accumulates the count in the optional counter and/or EEPROM.

Applications: Smoke detection in isolated or unattended areas, smoking in Hazardous Areas and Fire Prevention. Just place the "FS" in the air return duct of your air circulating systems or other critical area.

Option: 10 GAS:

A. **Transmitter:** Same as 08.A above except it has a built-in Gas (Ionization Type) Detector.

B. **Receiver:** Turns on & latches its LED, buzzer and relay until manually reset and accumulates the count in the optional counter and/or EEPROM.

Applications: Gas leakage detection/alarming in Factories, Storage Facilities, Hazardous Areas, etc.

NOTE: IF YOU DON'T SEE IT ASK FOR IT!

ORDERING INFORMATION (8/00)

MODEL FS - ☐ ☐ ☐ ☐ ☐ ☐

INPUT FUNCTION
- 00 ..... Alarm Controller
- 01 ..... Position (TILT)
- 02 ..... Liquid Level Alarm
- 03 ..... Liquid Level Control
- 04..... ..... Moisture Alarm
- 05 ..... Moisture Control
- 06 ..... Start/Stop (On/Off)
- 07 ..... Counter (Events)
- 08 ..... Smoke Alarm
- 09 ..... Custom Number
- 10 ..... Gas Alarm

CASE STYLE (1)
- 0 ..... Transmitter Only Miniature Case
- 1 ..... Transmitter Only AC Wall Mount Case
- 2 ..... Receiver Only
- 3 ..... 1 Set (Miniature Case)
- 4 ..... 1 Set (Wall Mount Case)

POWER OPTIONS (2)
- 0 ..... 5VDC Power
- 1 ..... 7-12VDC Power
- 2 ..... Internal 3-AAA Battery Pack
- 3 ..... 120VAC Power
- 4 ..... 120VAC with 9V Battery B-U

CUSTOM
- 0 ..... Standard
- 9 ..... Custom (Specify)

COUNTER & EEPROM OPTION (3)
- 0 ..... None
- 1 ..... Counter Included
- 2 ..... EEPROM Included
- 3 ..... Counter & EEPROM

IF YOU DON'T SEE IT ASK FOR IT!

NOTES:
1. For Transmitter, only use options 0 or 1 and for the Receiver only use Option 2. For 1 Set with transmitter in miniature case, order Option 3; For 1 Set with Transmitter in AC Plug case, order Option 4.
2. Power Options 0, 1 & 2 only for transmitter in miniature case ie. P/N FS-XX0-000, P/N FS-XX3-100
3. Counter not available in miniature case for transmitter.
4. All units shipped with matching code "000" unless requested otherwise.

FAIL-SAFE ("FS") SERIES MECHANICAL